

Appl. No. 10/529,616
Amdt. dated August 16, 2007
Reply to Office action of May 17, 2007

The listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims:

Claim 1 (currently amended): A container (1) for radioactive materials comprising a main hollow body (2) as well as a cover (6) made of at least a first metallic material, said cover (6) ~~capable of~~ being fixed on the main hollow body (2) by means of sealing means (26) made of a second metallic material poured into a groove (24) defined by the cover (6) and the main hollow body (2) of the container (1), ~~characterised in that~~ wherein the cover (6) and the main hollow body (2) are made solid with said sealing means (26) by means of a bonding zone (28), formed by chemical reaction between the first and second metallic materials, wherein the first metallic material comprises a material selected from the group consisting of cast iron and steel, and wherein the second metallic material poured is a material selected from the group consisting of aluminum and aluminum alloys, with the bonding zone (28) being composed of an iron-aluminum alloy.

Claims 2-6 (canceled)

Claim 7 (currently amended): ~~The~~ A container (1) ~~as claimed in claim 1, in which for~~ radioactive materials comprising a main hollow body (2) as well as a cover (6) made of at least a first metallic material, said cover (6) being fixed on the main hollow body (2) by means of sealing means (26) made of a second metallic material poured into a groove (24) defined by the cover (6) and the main hollow body (2) of the container (1), wherein the cover (6) and the main hollow body (2) are made solid with said sealing means (26) by means of a bonding zone (28), formed by chemical reaction between the first and second metallic materials, and wherein the bonding zone (28) uses an average thickness (29) of between 10 mm and 5 mm.

Appl. No. 10/529,616
Amdt. dated August 16, 2007
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Claim 8 (currently amended): The container (1) as claimed in claim 1 or claim 7, in which the cover (6) comprises an external lateral surface (22) partially defining said groove (24) and comprising two adjacent portions (30,32) inclined respectively at an angle α and an angle β relative to a direction (34) parallel to a longitudinal principal axis of the container (38), the angles α and β being acute and opposite so as to produce a corner effect.

Claim 9 (currently amended): A process for closing a container (1) for radioactive materials comprising a main hollow body (2) as well as a cover (6) made of at least a first metallic material, said process comprising a stage of placing the cover (6) on said main hollow body (2) of the container (1) so as to form a groove (24) between these two elements (2, 6), followed by a stage of excess pouring the second metallic material in said groove (24) over a determined period, so as to cause heating of the first metallic material constituting said groove (24) as well as washing the surfaces (20, 22) of this groove, followed by a stage of making sealing means (26) ensuring fixing of the cover (6) onto the main hollow body (2) of the container (1) by pouring a second metallic material into said groove (24), ~~characterised in that~~ wherein the second metallic material is selected such that it is likely to react chemically with each first metallic material, so as to form a bonding zone (28) between the sealing means (26) on the one hand, and the cover (6) and the main hollow body (2) of the container (1) on the other hand.

Claim 10 (original): The process as claimed in claim 9, in which the stage of placing the cover (6) is followed by a stage of pre-heating the first material constituting the groove (24).

Claim 11 (original): The process as claimed in claim 10, in which the stage of pre-heating is preceded by a preparation stage of the surfaces (20, 22) of the groove (24).

Appl. No. 10/529,616
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Claim 12 (original): The process as claimed in claim 11, in which the preparation stage of the surfaces (20, 22) of the groove (24) is done by means of at least one preparation technique taken from the group constituted by mechanical, chemical and electrochemical techniques for preparation of surfaces, and techniques for depositing layers of metallic materials.

Claim 13 (cancelled)

Claim 14 (currently amended): The process as claimed in claim 9, in which the stage of making the sealing means (26) by pouring the second metallic material into said groove (24) is followed by a heating stage of this second material resting in said groove (24), so as to ~~favour~~favor chemical reaction between the first and second metallic materials.